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Serial No. : 10/551,326
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Amendments to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1-171. (Cancelled)

172. (Currently amended) A method of inducing formation or repair of blood vessels in a first tissue in need of blood vessel formation or blood vessel repair, comprising contacting the first tissue with a population of cells enriched for mesenchymal precursor cells (MPCs) that express the marker STRO-1 ~~or cultured or expanded cells derived therefrom~~ progeny of the MPCs that express the marker STRO-1, so as to thereby generate new blood vessels or to repair existing blood vessels in the first tissue.

173-174. (Cancelled)

175. (Previously presented) The method of claim 172 wherein the population of cells comprises at least 0.01% MPCs capable of forming a clonogenic colony.

176. (Currently amended) The method of claim 172 wherein the population of cells comprises at least 0.1% MPCs capable of forming a clonogenic colony.

177. (Previously presented) The method of claim 172 wherein the population of cells comprises at least 0.01% STRO-1^{bright} MPCs.

178. (Previously presented) The method of claim 172 wherein the population of cells comprises at least 0.1% STRO-1^{bright} MPCs.

179. (Previously presented) The method of claim 172 wherein the population of cells comprises at least 1% STRO-1^{bright} MPCs.
180. (Previously presented) The method of claim 172 wherein the MPCs that express the marker STRO-1 are positive for any one or more of the markers 3G5, MUC18/CD146, and alpha-smooth muscle actin.
181. (Previously presented) The method of claim 172 wherein the MPCs that express the marker STRO-1 additionally co-express the marker VCAM-1.
- 182-183. (Cancelled)
184. (Previously presented) The method of claim 172 wherein the population of cells is derived from a second tissue selected from the group consisting of skin, liver, kidney, heart, adipose tissue, teeth, dental pulp, retina, brain, hair follicles, intestine, lung, spleen, lymph node, thymus, pancreas, bone, ligament, bone marrow, tendon, and skeletal muscle.
185. (Previously presented) The method of claim 172 wherein the population of cells is isolated from a perivascular niche within a vascularised tissue source.
186. (Previously presented) The method of claim 172 wherein the population of cells is isolated from a perivascular niche within a non-haemopoietic vascularised tissue.
- 187-190. (Cancelled)
191. (Previously presented) The method of claim 172 wherein the population of cells comprises at least 10% STRO-1^{bright} MPCs.

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192. (Currently amended) The method claim 172 wherein the MPCs that express the marker STRO-1 co-express any one or more of the markers selected from the group consisting of THY-1, VCAM-1, ICAM-1, PECAM-1, CD49a/CD49b/CD29, CD49c/CD29, CD49d/CD29, CD29, CD61, integrin beta5, 6-19, thrombomodulin, CD10, CD13, SCF, PDGF-R, EGF-R, IGF-1R, NGF-R, FGF-R, and Leptin-R ~~and (STRO-2)~~.
193. (Previously presented) A method of inducing neovascularisation in a target tissue of a patient, the method comprising the step of administering to the target tissue an effective amount of a population of mesenchymal precursor cells (MPCs) enriched for cells that express the marker STRO-1.
194. (Previously presented) The method according to claim 192, wherein the target tissue is cardiac tissue.
195. (New) The method of claim 172, wherein the tissue in need of blood vessel formation or blood vessel repair is ischemic tissue.
196. (New) The method of claim 195, wherein the ischemic tissue is in a subject suffering from cerebrovascular ischemia, renal ischemia, pulmonary ischemia, limb ischemia, ischemic cardiomyopathy, or myocardial ischemia.